

Identification of Soldiers with Patellofemoral Pain Who Respond Best to Patellar Taping (FY02-2087)

Impact

The essential characteristics were identified that will enable clinicians to predict which soldiers with patellofemoral pain syndrome (PFPS) will respond best to patellar taping.

Description

PFPS is the second most common overuse injury in military training and is an extremely costly disorder due to lost training time and treatment expense. Several conservative treatment approaches have been described for the management of PFPS. However, no research has identified the characteristics of patients with PFPS that respond best to specific treatment strategies, such as patellar taping. The purpose of this initiative was to identify those participants with patellofemoral pain who respond best after one session of patellar taping. The goal was to recruit and assess 50 trainees with PFPS.

Outcomes

A clinical prediction rule was developed that will enable clinicians to predict which soldiers with PFPS will respond best to patellar taping. The results of this initiative will lead to direct cost savings in terms of the number of patellar taping kits ordered. Clinicians can now identify who will respond best to patellar taping based on the clinical prediction rule and not random trial-and-error. Ultimately, the timely categorization of patients with PFPS who respond most favorably to patellar taping should result in a reduction in the number of profile days and also decrease the recurrence rate of PFPS. This initiative was the first step in a three-part process that may lead to implementation of this procedure in clinics Army-wide. The other two steps are dissemination of results to clinicians and validation of the outcomes in a randomized clinical trial.

Innovative Features

The causes of PFPS are not clear and numerous treatments have been proposed for this condition. The purpose of this initiative was to identify patients who respond best to a specific intervention. Prior to this initiative, no study had been completed to identify the subgroup of patients with PFPS who respond most favorably to patellar taping.

Lessons Learned / Recommendations

- The categorization of patients with PFPS who respond most favorably to patellar taping can be accomplished using the clinician rule developed by this initiative.

- Many factors can reduce recruitment for an initiative like this one. In this case inclement weather limited training, which in turn reduced the frequency of training injuries, such as knee pain.
- The development of a clinician rule or an evidence-based algorithm to group patients together based on a standardized set of criteria can be very valuable in the identification of effective treatment protocols and potential areas for cost savings.

Ongoing project update: April 2005

(Note: this project received HPPI funds for FY02 only.)

- Data collection is complete.
- A manuscript will be submitted to the Journal of Orthopedic and Sports Physical Therapy (JOSPT).
- The study has been presented at two Physical Therapy Association meetings.
- Abstract citation for JOSPT: Leshner J, Sutlive TG, Chine N, Miller G, Garber M, Wainner R: Development of a clinical prediction rule for classifying patients with patellofemoral pain syndrome who respond to patellar taping. J Orthop Sports Phys Ther. 2004;34(1):A2-3.
- The proposal for a randomized control trial will be drafted in late 2005.